side chain characterized in that, said glycosyl donor molecule having a β configuration and said glycoside acceptor molecule having an α configuration, or vice versa.

41. (new) The method of claim 40, wherein the glycosidase enzyme is a stereochemistry retaining enzyme in which one of the carboxylic acid side chains in the active site functions as an acid/base catalyst and the other carboxylic acid side chain functions as a nucleophile, and wherein the amino acid having the nucleophilic carboxylic acid side chain is replaced in the mutant enzyme.

42. (new) The method of claim 41, wherein the enzyme is a β-glycosidase.

43. (new) The method of claim 42, wherein the glycosyl donor molecule is an α-glycosyl fluoride.

44. (new) The method of claim 43, wherein the α-glycosyl fluoride is an α-glucosyl fluoride.

45. (new) The method of claim 43, wherein the α-glycosyl fluoride is an α-galactosyl fluoride.

46. (new) The method of claim 40, wherein the enzyme is a β-glycosidase.

47. (new) The method of claim 40, wherein the enzyme is a β-glucosidase.

48. (new) The method of claim 40, wherein the acceptor molecule is an aryl-glycoside.

49. (new) The method of claim 48, wherein the acceptor molecule is a nitrophenyl-glycoside.

50. (new) The method of claim 40, wherein the glycosidase enzyme is a stereochemistry inverting enzyme in which one of the carboxylic acid side chains in the active site functions as an acid catalyst and the other carboxylic acid side chain functions as a base catalyst, and wherein the

amino acid having the carboxylic acid side chain which functions as a base catalyst is replaced in the mutant enzyme.

51. (new) The method of claim 40, wherein the enzyme is a mutant form of human or porcine α-amylase in which amino acid 197 has been changed from aspartic acid to alanine.

52. (new) The method of claim 40, wherein the enzyme is a mutant form of human or porcine α-amylase in which amino acid 197 has been changed from aspartic acid to an amino acid with a non-carboxylic acid side chain.

53. (new) The method of claim 40, wherein the enzyme is a mutant form of yeast α-glucosidase in which amino acid 216 has been changed from aspartic acid to alanine.

54. (new) The method of claim 40, wherein the enzyme is a mutant form of yeast α-glucosidase in which amino acid 216 has been changed from aspartic acid to a non-carboxylic acid amino acid.

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55. (new) The method of claim 40, wherein the glycosidase enzyme is selected from the group consisting of β-glucosidases, β-galactosidases, β-mannosidases, β-N-acetyl glucosaminidases, β-N-acetyl galactosaminidases, β-xylosidases, β-fucosidases, cellulases, xylanases, galactanases, mannanases, hemicellulases, amylases, glucoamylases, α-glucosidases, α-galactosidases, α-mannosidases, α-N-acetyl glucosaminidases, α-N-acetyl galactosaminidases, α-xylosidases, α-fucosidases, and neuraminidases/sialidases.

56. (new) A mutant form of a glycosidase enzyme, said enzyme being selected from among glycosidase enzymes having two catalytically active amino acids with carboxylic acid side chains within the active site of the wild-type enzyme, one of said carboxylic acid side chains functioning as a base catalyst and one of said carboxylic acid side chains functioning as an acid catalyst, and said mutant form of the enzyme being mutated to replace the amino acid residue having the

carboxylic acid side chain functioning as a base catalyst with an amino acid having a non-ionizable side chain of comparable or smaller size.

57. (new) A mutant form of human or porcine α-amylase in which the aspartic acid at position 197 is replaced with a different amino acid having a non-carboxylic acid side chain such that the enzyme cannot catalyze the hydrolysis of oligosaccharides.

58. (new) The mutant amylase of claim 57, wherein the different amino acid is alanine.

59. (new) A mutant form of yeast α-glucosidase in which the aspartic acid at position 216 is replaced with a different amino acid having a non-carboxylic acid side chain such that the enzyme cannot catalyze the hydrolysis of oligosaccharides.

60. (new) The mutant α-glucosidase of claim 59, wherein the different amino acid is alanine.

61. (new) An oligosaccharide prepared by the steps of:

(a) combining a glycosyl donor molecule and a glycoside acceptor molecule in a reaction mixture; and

(b) enzymatically coupling the donor molecule to the acceptor molecule using a mutant glycosidase enzyme to form the oligosaccharide, said enzyme being selected from among glycosidase enzymes having two catalytically active amino acids with carboxylic acid side chains within the active site of the wild-type enzyme, and said mutant enzyme being mutated to replace one of the amino acid residues having a catalytically active carboxylic acid side chain as a side chain with an amino acid having a non-carboxylic acid side chain, characterized in that, said glycosyl donor molecule having a β configuration and said glycoside acceptor molecule having an α configuration, or vice versa.

62. (new) The oligosaccharide of claim 61, wherein the glycosidase enzyme is a stereochemistry retaining enzyme in which one of the carboxylic acid side chains in the active

site functions as an acid/base catalyst and the other carboxylic acid side chain functions as a nucleophile, and wherein the amino acid having the nucleophilic carboxylic acid side chain is replaced in the mutant enzyme by an amino acid having a side chain of comparable of smaller size.

63. (new) The oligosaccharide of claim 62, wherein the enzyme is a β-glycosidase.

64. (new) The oligosaccharide of claim 63, wherein the glycosyl donor molecule is an α-glycosyl fluoride.

65. (new) The oligosaccharide of claim 64, wherein the α-glycosyl fluoride is an α-glucosyl fluoride.

66. (new) The oligosaccharide of claim 64, wherein the α-glycosyl fluoride is an α-galactosyl fluoride.

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67. (new) The oligosaccharide of claim 63, wherein the enzyme is a β-glucosidase.

68. (new) The oligosaccharide of claim 62, wherein the enzyme is *Agrobacterium* β-glucosidase in which amino acid 358 has been changed from glutamic acid to alanine.

69. (new) The oligosaccharide of claim 62, wherein the acceptor molecule is an aryl-glycoside.

70. (new) The oligosaccharide of claim 69, wherein the acceptor molecule is a nitrophenyl-glycoside.

REMARKS

This RESPONSE TO OFFICE ACTION addresses the issues raised in the Examiner's